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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,036	01/15/2002	Wayne A. Bryden	1585-0002	4463

7590 01/30/2004

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EXAMINER

WEBER, JON P

ART UNIT

PAPER NUMBER

1651

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/031,036

Applicant(s)

BRYDEN ET AL.

Examiner

Jon P Weber, Ph.D.

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1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 15-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Status of the Claims

Claims 1-25 have been presented for examination.

This Office action is supplemental to the Office action mailed 21 January 2004 so as to provide and apply newly acquired prior art references.

Election/Restrictions

Claims 15-25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group as set forth in the Office action mailed 21 January 2004.

Claim Rejections - 35 USC § 112

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention as set forth in the Office action mailed 21 January 2004.

Claim Rejections - 35 USC § 102

Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Eriksson et al. (US 6,446,010) for the reasons of record set forth in the Office action mailed 21 January 2004.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Schnürer et al. (Jul 1999) for the reasons of record set forth in the Office action mailed 21 January 2004.

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Claims 1-3 are rejected under 35 U.S.C. 102(a) as being anticipated by Schneiter et al. (Aug 1999) for the reasons of record set forth in the Office action mailed 21 January 2004.

Claims 1-14 are rejected under 35 U.S.C. 102(a) as being anticipated by Welham et al. (Mar 2000) and Wellham et al. (15 Mar 2000) for the reasons of record set forth in the Office action mailed 21 January 2004.

Claims 1-3 are rejected under 35 U.S.C. 102(a) as being anticipated by Jaworski et al. (Apr 2000) for the reasons of record set forth in the Office action mailed 21 January 2004.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by McCorkindale et al. (1969) for the reasons of record set forth in the Office action mailed 21 January 2004.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Wilkins et al. (1996) for the reasons of record set forth in the Office action mailed 21 January 2004.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Smedsgaard et al. (1996) for the reasons of record set forth in the Office action mailed 21 January 2004.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Larsson et al. (1997) for the reasons of record set forth in the Office action mailed 21 January 2004.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Julian et al. (Aug 1998) for the reasons of record set forth in the Office action mailed 21 January 2004.

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Claims 1-2 are newly rejected under 35 U.S.C. 102(b) as being anticipated by Emoknonov et al. (1994).

Emoknonov et al. (1994) disclose using GC-MS to separate and then detect volatile biomarkers in the head space gases obtained from fungal infected grains. As seen on Table 1, the markers are specific for different fungal organisms.

Claims 1-3 are newly rejected under 35 U.S.C. 102(b) as being anticipated by Lauritsen et al. (1994).

Lauritsen et al. (1994) disclose using membrane inlet in combination with EI- and CI-MS to detect and identify volatile metabolites as biomarkers for several species of yeast.

Claim Rejections - 35 USC § 103

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smedsgaard et al. (1996), Emoknonov et al. (1994), Lauritsen et al. (1994) and Julian et al. (Aug 1998) in view of Demirev et al. (1999), Hathout et al. (1999), Leenders et al. (1999), Jarman et al. (2000), Erhard et al. (1997), Arnold et al. (1998), Heller et al. (1987), Claydon et al. (1996), Liang et al. (1996), and Krishnamurthy et al. (1996).

The teachings of Smedsgaard et al. (1996), Emoknonov et al. (1994), Lauritsen et al. (1994) and Julian et al. (Aug 1998) have been discussed above or in the Office action mailed 21 January 2004. Smedsgaard et al. (1996), Emoknonov et al. (1994), Lauritsen et al. (1994) and Julian et al. (Aug 1998) lack MALDI and MALDI-TOF MS, all the specific matrix agents and the number of laser shots.

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The teachings of Demirev et al. (1999), Hathout et al. (1999), Leenders et al. (1999), Jarman et al. (2000), Arnold et al. (1998), Heller et al. (1987), Claydon et al. (1996), Erhard et al. (1997), Liang et al. (1996), and Krishnamurthy et al. (1996) have been discussed in the Office action of 21 January 2004.

A person of ordinary skill in the art at the time the invention was made would have been motivated to substitute the known matrix acids and laser shots disclosed by Demirev et al. (1999), Hathout et al. (1999), Leenders et al. (1999), Erhard et al. (1997), Jarman et al. (2000), Arnold et al. (1998), Heller et al. (1987), Claydon et al. (1996), Liang et al. (1996), and Krishnamurthy et al. (1996) for those of Smedsgaard et al. (1996) and Julian et al. (Aug 1998) for the reasons of record in the Office action mailed 21 January 2004. Emoknonov et al. (1994) and Lauritsen et al. (1994) further establish that using MS to identify biomarkers specific to particular fungi was disclosed in the prior art.

Hence, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to substitute the matrix agents of Demirev et al. (1999), Hathout et al. (1999), Leenders et al. (1999), Erhard et al. (1997) and Arnold et al. (1998) for those of Smedsgaard et al. (1996) and Julian et al. (Aug 1998) and to vary the number of laser shots as needed in a MALDI or MALDI-TOF generation of identifying biomarkers database.

No claims are allowed.

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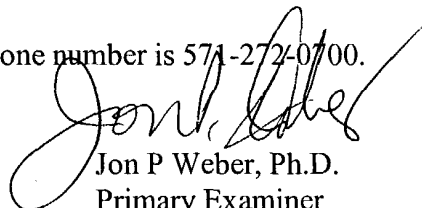
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jon P Weber, Ph.D. whose telephone number is 571-272-0925.

The examiner can normally be reached on daily, off 1st Fri, 9/5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-0700.



Jon P Weber, Ph.D.
Primary Examiner
Art Unit 1651

JPW
27 January 2004